GPS RECEIVER WITH IMPROVED IMMUNITY TO BURST TRANSMISSIONS

Priority Claim

This application claims the benefit of U.S. Application No. 10/147,983 filed May 20, 2002, now US Patent No. 6,681,181, which is hereby incorporated by reference in its entirety.

JC 4/26/05

Field of the Invention

The invention relates to spread-spectrum communications and, in particular, to an improved GPS receiver in close proximity to a radio frequency transmitter.

Background

The basic functionality of a Global Positioning System (GPS) receiver is to calculate the latitude, longitude and altitude of the GPS receiver's location (i.e., the co-ordinates of the receiver) upon receiving a number of GPS signals from a network of GPS satellites that orbit the earth. The calculation of the co-ordinates of the GPS receiver typically begins by comparing the timing associated with a select number of received GPS signals. After the initial comparison of the received GPS signals, values for timing corrections associated with the select group of received GPS signals are established. The timing corrections are made in order to solve a three-dimensional geometric problem, which has as its solution the co-ordinates of the GPS receiver.

The received GPS signals are typically weak and thus easily interfered with by other radio transmissions in the same or adjacent frequency bands. Interference can be